I. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A transparent oxide electrode film having indium oxide containing titanium as its main component, wherein tin is absent, and wherein indium in said indium oxide is substituted with titanium at a titanium/indium atomic ratio between 0.003 and 0.050~~0.003 and 0.120~~, said indium oxide is crystalline, and the resistivity of said transparent oxide electrode film is up to 4.0 x 10-4 Ωcm, and wherein said transparent oxide electrode film is manufactured using a sputtering method using a sputtering target manufactured from an oxide sintered body. ~~5.7 x 10^{-4} Ωcm.~~

2. (Cancelled)

3. (Previously Presented) A transparent oxide electrode film according to claim 1, wherein the average light transmittance for wavelengths between 1000 nm and 1400 nm is at least 60%.

4. (Previously Presented) A transparent oxide electrode film according to claim 1, wherein the carrier electron concentration given by Hall effect measurement is up to 5.5 x 10^{20} cm^{-3}.

5. (Original) A transparent oxide electrode film according to claim 4, wherein the carrier electron concentration given by Hall effect measurement is up to 4.0 x 10^{20} cm^{-3}.

6. (Previously Presented) A transparent oxide electrode film according to claim 1, wherein the carrier electron mobility given by Hall effect measurement is at least 40 cm^2/Vsec.

7. (Original) A transparent oxide electrode film according to claim 6, wherein the carrier electron mobility given by Hall effect measurement is at least 60 cm^2/Vsec.

8. (Original) A transparent oxide electrode film according to claim 6, wherein the carrier electron mobility given by Hall effect measurement is at least 70 cm^2/Vsec.

9. (Withdrawn) A transparent oxide electrode film having indium oxide containing titanium and tungsten as its main component, wherein indium in said indium oxide is substituted with titanium and tungsten at a ratio which when the titanium/indium atomic ratio is deemed x and the tungsten/indium atomic ratio is deemed y, satisfies an equation (1), $0.019\text{-}1.90x \leq y \leq 0.034\text{-}0.28x$ (1) and wherein said indium oxide is crystalline, and the resistivity is up to 5.7×10^{-4} Ωcm.

10. (Withdrawn) A transparent oxide electrode film according to claim 9, wherein when the titanium/indium atomic ratio is deemed x and the tungsten/indium atomic ratio is deemed y, said ratio satisfies an equation (2) $0.019\text{-}1.27x \leq y \leq 0.034\text{-}0.68x$ (2) and wherein said resistivity is up to 3.8×10^{-4} Ωcm.

11. (Withdrawn) A transparent oxide electrode film according to claim 9, wherein the average light transmittance for wavelengths between 1000 nm and 1400 nm is at least 60%.

12. (Withdrawn) A transparent oxide electrode film according to claim 9, wherein the carrier electron concentration given by Hall effect measurement is up to 5.5×10^{20} cm^{-3}.

13. (Withdrawn) A transparent oxide electrode film according to claim 12, wherein the carrier electron concentration given by Hall effect measurement is up to 4.0×10^{20} cm^{-3}.

14. (Withdrawn) A transparent oxide electrode film according to claim 9, wherein the carrier electron mobility given by Hall effect measurement is at least 40 cm^2/Vsec.

15. (Withdrawn) A transparent oxide electrode film according to claim 14, wherein the carrier electron mobility given by Hall effect measurement is at least 60 cm^2/Vsec.

16. (Withdrawn) A transparent oxide electrode film according to claim 15, wherein the carrier electron mobility given by Hall effect measurement is at least 70 cm^2/Vsec.

17. (Currently Amended) A manufacturing method for a transparent oxide electrode film according to claim 1, wherein said ~~transparent oxide electrode film is deposited by a~~ sputtering method uses said ~~using either a~~ sputtering target manufactured from the ~~an~~ oxide sintered body for which the constituent elements are substantially indium, titanium and oxygen~~, or a sputtering target manufactured from an oxide sintered body for which the constituent elements are substantially indium, titanium, tungsten and oxygen,~~ at a substrate temperature of at least 100° C., using a mixed gas of argon and oxygen containing at least 0.25% oxygen as the sputtering gas.

18. (Original) A transparent electroconductive base material, wherein a transparent oxide electrode film according to claim 1 is formed on a transparent substrate.

19. (Original) A transparent electroconductive base material of claim 18, wherein the average light transmittance in the wave length range from 1000 nm to 1400 nm is at least 60%, and wherein the surface resistance is up to 30 Ω/□.

20. (Previously Presented) A solar cell, which uses a transparent oxide electrode film according to any one of claim 1.

21. (Previously Presented) A solar cell according to claim 19 having a sequentially layered construction comprising either one of a substrate on which an electrode layer is provided and a conductive metal substrate, and further comprising a light absorbing layer of a p-type semiconductor provided on said substrate, a middle layer of an n-type semiconductor provided on said light absorbing layer, a window layer of a semiconductor provided on said middle layer, and an n-type transparent electrode layer provided on said window layer, wherein said transparent electrode layer is a transparent oxide electrode film having indium oxide containing titanium as its main component, wherein indium in said indium oxide is substituted with titanium at a titanium/indium atomic ratio between 0.003 and 0.120, said indium oxide is crystalline, and the resistivity of said transparent oxide electrode film is up to 5.7×10^{-4} Ωcm.

22. (Previously Presented) A solar cell according to claim 20 having a sequentially layered construction comprising a transparent electrode layer provided on a transparent substrate, a window layer of a semiconductor provided on said transparent electrode layer, a middle layer of an n-type semiconductor provided on said window layer, and a light absorbing layer of a p-type semiconductor provided on said middle layer, wherein said transparent electrode layer is a transparent oxide electrode film having indium oxide containing titanium as its main component, wherein indium in said indium oxide is substituted with titanium at a titanium/indium atomic ratio between 0.003 and 0.120, said indium oxide is crystalline, and the resistivity of said transparent oxide electrode film is up to 5.7×10^{-4} Ωcm.

23. (Previously Presented) A solar cell according to claim 21, wherein said light absorbing layer is at least one member selected from the group of $CuInSe_2$, $CuInS_2$, $CuGaSe_2$, $CuGaS_2$ and a solid solution of these compounds, and CdTe.

24. (Previously Presented) A solar cell according to claim 21, wherein said middle layer is either one of a solution precipitated CdS layer and a (Cd, Zn) S layer.

25. (Previously Presented) A solar cell according to claim 21, wherein said window layer is either one of ZnO and (Zn, Mg) O.

26. (Previously Presented) A photo detection element comprising a pair of electrodes and a layer of photo detection materials interposed between the said electrodes, wherein the transparent oxide electrode film according to claim 1 is used as at least one of the said electrodes.

27. (Previously Presented) A photo detection clement according to claim 26, wherein the said layer of photo detection materials is a layer of infrared light detection materials and the photo detection element is for detecting infrared light.